

No.

200200111



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

O & A Enterprises, Inc.

WITNESSETH, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

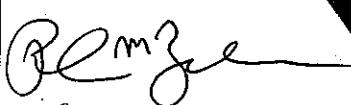
NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'DP 340'

In Testimony Whereof, I have hereunto set my hand
and caused the seal of the Plant Variety
Protection Office to be affixed at the City of
Washington, D.C. this twenty-third day of
March, in the year two thousand and five.

Attest:


R.L. Johnson

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service


M. L. Johnson

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER

O & A Enterprises, Inc.

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)

37860 W. Smith Enke Road PO BOX 1440
Maricopa, AZ 85239

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

OA-340

3. VARIETY NAME

DP 340 *Pima* *AAK*

FOR OFFICIAL USE ONLY

PVPO NUMBER

20020011

FILING DATE

03/04/02

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)

Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

Delaware

9. DATE OF INCORPORATION

April 1998

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)

Dr. James M. Olvey
O&A Enterprises, Inc.
37860 W. Smith-Enke Road PO Box 1440
Maricopa, AZ 85239

WAL 2/5/04

FILING AND EXAMINATION FEES:

\$ 2705

DATE 03/04/02

CERTIFICATION FEE:

\$ 432.00

DATE 06/01/04

11. TELEPHONE (Include area code)

(520) 381-2219

12. FAX (Include area code)

(520) 568-2556

13. E-MAIL

pimarus@aol.com

14. CROP KIND (Common Name)

Pima Cotton

15. GENUS AND SPECIES NAME OF CROP

Gossypium Barbadense

16. FAMILY NAME (Botanical)

Malvaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?

 YES NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act

 YES (If "yes", answer items 20 and 21 below) NO (If "no", go to item 22)20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? YES NOIF YES, WHICH CLASSES? FOUNDATION REGISTERED CERTIFIED21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? YES NOIF YES, SPECIFY THE FOUNDATION REGISTERED CERTIFIED NUMBER 1,2,3, etc.

(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?

 YES March 13, 2001 NO

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?

 YES NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER

Dr. James M. Olvey

SIGNATURE OF OWNER

NAME (Please print or type)

Dr. James M. Olvey

NAME (Please print or type)

CAPACITY OR TITLE

President

DATE

2-25-02

CAPACITY OR TITLE

DATE

Revised
Exhibit A

200200111
REPLACEMENT
3/9/04 LLL

Origin and Breeding History
DP 340 Pima (OA-340)

WY
5/11/04

The selection criteria for Pima OA-340 was for a taller plant with larger boll size and increased number of nodes with more fruiting positions resulting in higher pounds of lint per acre (yield). Other selection criteria included lower gossypol in the cottonseed (to reduce toxicity of cattle feed), higher % oil content (for the cottonseed oil market) and a higher seed index which increases the viability of the seed for planting.

Pima OA-340 originated from a cross between OA experimental lines 67205 and 65482. Pima OA-340 was tested in several areas in the San Joaquin Valley (SJV) and was approved by the SJVCB's Cotton Board. Pima OA-340 is well adapted to high verticillium wilt soils, has excellent heat tolerance, has excellent seedling vigor with high yields and is productive throughout the SJV.

Stability and uniformity of Pima OA-340 has been observed for 4 generations in which no variants have occurred. The variety is uniform and stable.

Breeding History

1989 (Cross)	67205 X 65482
1990	F1
1991	F2
1992	F3
1993	F4
1994	Individual Plant Selection by O&A in CA
1995	Progeny Row
1996	Preliminary Strains
1997	Advanced Strains
1998	1st Year SJVCB Testing and Increase
1999	2 nd Year SJVCB Testing and Increase
2000	3 rd Year SJVCB Testing and Increase
2001	SJVCB approval and commercial release

Exhibit 18B

Statement of Distinctness
DP 340 Pima (OA-340)

July 6/104

Pima OA-340 is most similar to the current standard, Pima S-7. SJVCB trial data from 1998, 1999 and 2000 indicate the following significant differences between Pima OA-340 and Pima S-7. Data tables from San Joaquin Valley Cotton Board (SJVCB) trials for 1998, 1999 and 2000 indicating these differences are attached.

All data was obtained from the San Joaquin Valley Cotton Board Pima Variety Testing Programs for 1998, 1999 and 2000 with the exception of a few plant characteristics obtained from in-house measurements. Except for the tests conducted at the Shafter and West Side Field Station (WSFS), all trials are conducted on commercial fields. Plots in variety trials (1998, 1999, 2000) are tested at 8 locations which run the length of the field, usually 1/4 mile and are replicated 4 times. All statistical information is at the 5% level of probability.

Pima OA-340 has significantly higher yields than Pima S-7 (1999; Exhibit 1) as measured in lbs. of lint per acre.

For plant characteristics, Pima OA-340 is taller (1998; Exhibit 2) and has a significantly larger boll than Pima S-7 (1998; Exhibit 2; 1999; Exhibit 3). Pima OA-340 has a significantly larger number of nodes and open bolls than Pima S-7 (2000; Exhibit 4). The height/node ratio is significantly lower for Pima OA-340 than Pima S-7 (1999; Exhibit 5). For seed composition, Pima OA-340 has a significantly lower % gossypol than Pima S-7 (1999; Exhibit 6). Pima OA-340 seed composition grades are significantly higher than Pima S-7 (1998; Exhibit 7; 1999; Exhibit 6). Pima OA-340 seed has a significantly higher % oil (1998; Exhibit 7; 1999; Exhibit 6) and a significantly lower % moisture (1998; Exhibit 7) than Pima S-7. Pima OA-340 has a significantly higher seed index (1998; Exhibit 7) and a significantly lower stand fineness (1999; Exhibit 9) than Pima S-7.

In spinning, Pima OA-340 has fewer neps (thin count)(2000; Exhibit 8) and a lower trash content (1999; Exhibit 9) than Pima S-7. OA-340 has significantly higher elongation than Pima S-7 (1999; Exhibit 10) and lower micronaire (2000; Exhibit 11).

It was noted in O&A in-house testing that Pima OA-340 had slightly darker green leaves than Pima S-7.

Exhibit 1

SJVCB Pima Trials 1999

Table 50. Pima lint yields from the SJV OFVT, 1999.

No.	Variety	Combined loc's [†]	Button-willow 1	Los Banos 2	Mari-copa 3	Wauk- ena. 4	WSFS 5
lbs/acre							
1.	OA-340	1430	1305	1562	1689	1047	1548
2.	PHY-76	1275	1012	1469	1724	1118	1050
3.	S-7	1291	1172	1491	1679	1012	1099
4.	PHY-88	1390	1129	1478	1776	1134	1416
5.	PHY-89	1376	991	1526	1791	1172	1399
6.	PHY-90	1350	1068	1479	1724	1120	1358
7.	DPX-9925	1343	1328	1521	1619	987	1262
8.	OA-347	1295	953	1417	1658	1024	1425
9.	DPX-9930	1281	1096	1445	1525	930	1413
10.	PHY-91	1276	1001	1473	1684	1119	1104
11.	OA-325	1258	1097	1370	1563	850	1411
12.	UA-5	1237	954	1343	1682	1046	1159
13.	UA-6	1195	959	1331	1502	794	1389
14.	OA-348	1149	1143	1280	1399	796	1129
15.	UA-7	1138	916	1269	1464	828	1213
16.	UA-8	1111	913	1244	1507	836	1055
<hr/>							
Mean+SE							
LSD (0.05)							
CV							

[†]Lint yields (within columns) followed by the same letter are not significantly different using the F-protected LSD test ($P \leq 0.05$).

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Exhibit 2
SJVCB PIMA VARIETY TEST - 1998
POST HARVEST PLANT HEIGHT - INCHES

	MARICOPA	BUTTON WILLOW	WSFS	LOS BANOS	MEAN
<u>S-7</u>	32	37	39	40	37
DPX 9920	32	35	41	39	<u>37</u>
HAZERA 195-86	65	64	74	67	67
HAZERA 83-58	55	58	61	56	57
OA-337	35	34	39	43	38
OA-325	31	32	36	35	34
OA-338	35	39	41	42	39
OA-340	37	38	42	41	<u>40</u>
PHY-70	44	41	43	51	45
PHY-74	42	37	49	41	42
PHY-76	50	45	53	54	50
PHY-77	49	43	53	52	50
UA-4	37	40	42	43	41
UA-5	41	43	43	43	43
UA-6	31	33	38	36	35
UA-7	42	46	50	42	45
AVERAGE	41	42	47	45	44
LSD .05	7	5	5	7	3
%CV	9.9	7.1	6.5	9.1	8.2

BOLL SIZE

	MARICOPA	BUTTON WILLOW	WSFS	LOS BANOS	MEAN
<u>S-7</u>	3.2	3.3	3.7	3.2	<u>3.3</u>
DPX 9920	3.8	3.9	4.6	3.8	<u>4.0</u>
HAZERA 195-86	3.6	3.3	3.4	3.8	3.5
HAZERA 83-58	4.1	4.7	4.7	4.7	4.5
OA-337	2.6	2.8	3.2	3.0	2.9
OA-325	3.3	3.0	3.7	3.4	3.3
OA-338	3.5	3.7	3.5	3.4	3.5
OA-340	3.6	3.6	3.8	3.8	<u>3.7</u>
PHY-70	3.6	3.4	3.2	3.0	3.3
PHY-74	3.2	2.9	3.4	3.2	3.1
PHY-76	3.4	3.2	3.5	3.5	3.4
PHY-77	3.8	3.9	4.0	3.8	3.9
UA-4	3.7	3.8	4.1	3.8	3.8
UA-5	3.3	3.3	3.6	3.6	3.4
UA-6	3.1	3.2	3.4	3.5	3.3
UA-7	3.1	3.4	3.9	3.3	3.4
AVERAGE	3.4	3.4	3.7	3.5	3.5
LSD .05	0.4	0.6	0.4	0.5	0.3
%CV	4.9	8.1	4.9	6.7	6.3

Exhibit 3

SJVCB Pima Trials 1999

Table 54. Pima 25 boll sample and gin turnout data, 1999.

No.	Variety	25 boll sample			Shafter gin Gin Turnout 4
		Boll size 1	Lint % 2	Seed Index (fuzzy) 3	
1.	OA-340	3.63	38.3	12.8	31.6
2.	PHY-76	3.76	38.5	13.5	30.9
3.	<u>S-7</u>	<u>3.34</u>	<u>39.1</u>	<u>13.1</u>	<u>31.0</u>
4.	PHY-88	3.77	39.4	12.7	31.7
5.	PHY-89	3.47	39.9	13.1	32.2
6.	PHY-90	3.71	38.2	14.1	30.7
7.	DPX-9925	3.56	38.4	12.2	31.1
8.	OA-347	3.93	37.6	14.4	30.8
9.	DPX-9930	3.54	38.8	12.2	31.8
10.	PHY-91	3.58	38.8	13.7	31.1
11.	OA-325	3.71	41.4	12.3	34.2
12.	UA-5	3.67	37.4	13.2	29.2
13.	UA-6	3.24	40.0	11.7	31.6
14.	OA-348	4.15	37.9	13.6	30.5
15.	UA-7	3.07	40.1	11.6	31.9
16.	UA-8	4.05	37.1	13.8	29.6
Mean±SE		3.64	38.8	13.0	31.3
LSD (0.05)		0.28	0.9	0.7	0.6
CV		8.7	2.5	6.0	2.0

Exhibit 4
SJVCB Pima Trials 2000

Table 24. Pima late season plant mapping, 2000.

No.	Variety	Height (inches)	HNR	Node (number)	Number of		
					1 st position bolls	2 nd position bolls	Open bolls
1.	<u>OA-340</u>	42.5 e	1.71 def	<u>25.0 defg</u>	10.2	6.6 abc	<u>12.1 a</u>
2.	<u>PHY-76</u>	52.3 a	1.97 a	<u>26.8 ab</u>	10.0	5.4 def	<u>8.2 de</u>
3.	<u>S-7</u>	<u>42.2 e</u>	<u>1.79 cde</u>	<u>23.8 hi</u>	<u>9.6</u>	<u>5.8 bcdef</u>	<u>9.4 bcde</u>
4.	CH-007	49.4 b	1.90 ab	26.3 abc	11.0	6.7 ab	10.6 abc
5.	PHY-89	45.2 d	1.89 abc	24.3 ghi	9.5	6.4 abcd	11.0ab
6.	PHY-88	47.2 c	1.88 abc	25.3 cdefg	10.3	5.4 def	9.2 bcde
7.	OA-345	41.3 ef	1.72 def	24.3 ghi	9.2	5.2 ef	7.7 ef
8.	E-104	41.7 ef	1.73 def	24.4 fghi	9.4	5.5 cdef	9.6 bcd
9.	OA-351	41.2 ef	1.71 ef	24.5 efghi	9.4	6.0 bcdef	10.4 abc
10.	E-102	46.3 cd	1.81 bcd	25.7 bcd	10.3	6.2 abcde	9.5 bcde
11.	OA-352	41.4 ef	1.69 fg	24.7 efghi	8.8	5.0 f	9.4 bcde
12.	E-103	44.6 d	1.65 fg	27.2 a	10.2	6.1 abcde	9.8 bcd
13.	OA-350	40.1 f	1.70 ef	23.6 i	9.7	6.1 abcde	8.9 cde
14.	E-101	46.4 cd	1.89 abc	24.7 defgh	9.9	5.3 ef	6.0 f
15.	UA-11	40.6 ef	1.59 g	25.6 cde	10.3	7.1 a	9.9 bcd
16.	UA-12	41.4 ef	1.65 fg	25.4 cdef	10.1	6.4 abcd	8.3 cd
Mean±SD		44.0±6.3	1.77±0.27	25.1 ±2.7	9.9±2.9	5.9±2.6	9.4±6.1
LSD(0.05)		1.9	2.0	1.1	1.2	1.1	1.9
CV		9.8	13.0	9.7	28.2	41.4	46.2

^aFiber and yarn parameter (within columns) followed by the same letter are not significantly different using the F-protected LSD test ($P \leq 0.05$).

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Exhibit 5
SJVCB Pima Trials 1999

Table 49. Pima late season plant mapping, 1999.

No.	Variety	Boll development		Fruiting branches		Fruiting branch ret.		Height and nodes			
		% bolls in position 1	% open bolls	total	95% zone	FB	95% zone	Height	Ht/N ratio	total nodes	Veg nodes
		1	2	3	4	5	6	7	8	9	10
1.	OA-340	47	17	18.2	13.9	73	67	37.7	1.60	23.4	5.3
2.	PHY-76	47	9	20.3	14.8	72	64	49.2	1.84	26.5	6.2
3.	S-7	47	18	18.0	12.9	81	75	40.1	1.71	23.1	5.1
4.	PHY-88	43	17	18.5	14.3	68	70	44.2	1.83	23.9	5.5
5.	PHY-89	42	17	18.4	13.9	74	70	41.4	1.72	23.8	5.4
6.	PHY-90	46	18	19.2	14.3	82	72	44.1	1.76	24.9	5.6
7.	DPX-9925	48	25	18.8	14.0	80	67	37.0	1.53	24.2	5.4
8.	OA-347	42	16	19.0	14.5	80	69	40.0	1.64	24.3	5.3
9.	DPX-9930	48	20	17.8	13.4	80	71	35.3	1.54	22.8	5.0
10.	PHY-91	43	13	20.4	15.2	77	66	47.7	1.76	26.9	6.5
11.	OA-325	40	18	17.6	14.0	75	69	36.1	1.56	23.0	5.3
12.	UA-5	45	14	20.1	15.4	73	66	43.4	1.64	26.3	6.2
13.	UA-6	38	19	17.9	13.2	80	75	36.8	1.57	23.2	5.3
14.	OA-348	47	15	17.7	13.7	82	73	36.7	1.61	22.6	5.0
15.	UA-7	34	14	18.2	13.2	81	75	35.9	1.52	23.4	5.2
16.	UA-8	42	14	20.2	15.3	69	64	39.6	1.57	25.1	5.2
Mean±SE		44	17	18.7	14.1	77	70	40.3	1.65	24.2	5.5
LSD (0.05)		5	5	1.3	1.0	7	6	3.4	0.07	1.4	0.4
CV		13.0	44.3	7.1	8.9	15.5	13.0	9.5	6.7	5.8	9.4

Exhibit 6
SJVCB Pima Trials 1999

Table 52. Pima Pope Testing Laboratory (PTL) seed quality data, 1999.

No.	Variety	% F.M. 1	%FFA 2	% Gossypol 3	Grade 4	Moisture 5	% NH3 6	% Oil 7
1.	<u>OA-340</u>	2.7	0.8	<u>1.36</u>	<u>97</u>	7.1	4.57	<u>20.4</u>
2.	<u>PHY-76</u>	2.9	0.6	<u>1.33</u>	<u>91</u>	7.5	4.63	<u>18.8</u>
3.	<u>S-7</u>	<u>2.9</u>	<u>0.9</u>	<u>1.44</u>	<u>95</u>	7.2	<u>4.61</u>	<u>19.8</u>
4.	PHY-88	2.8	0.5	1.35	93	7.6	4.70	19.0
5.	PHY-89	2.5	0.5	1.31	91	7.6	4.62	18.5
6.	PHY-90	2.6	0.5	1.12	86	7.7	4.53	17.5
7.	DPX-9925	2.9	0.7	1.51	95	7.2	4.46	20.0
8.	OA-347	2.5	0.7	1.36	99	6.9	4.36	21.1
9.	DPX-9930	2.6	0.6	1.40	98	7.0	4.58	20.5
10.	PHY-91	2.6	0.5	1.38	91	7.7	4.71	18.6
11.	OA-325	2.3	0.6	1.30	95	7.1	4.59	19.7
12.	UA-5	2.5	0.6	1.52	100	7.3	4.74	20.8
13.	UA-6	3.3	0.7	1.42	96	7.2	4.57	20.2
14.	OA-348	2.7	0.6	1.60	97	6.9	4.58	20.3
15.	UA-7	2.8	0.8	1.30	98	7.2	4.65	20.4
16.	UA-8	2.4	0.7	1.15	93	7.4	4.48	19.3
Mean₊SE		2.7	0.6	1.37	95	7.3	4.59	19.7
LSD (0.05)		NS	NS	0.08	2	0.2	0.10	0.4
CV		20.4	22.0	4.3	1.6	2.3	4.3	1.5

Exhibit 7

SJVCB PIMA VARIETY TEST - 1998

COTTONSEED ANALYSIS

	% MOIST	% F.M.	% FFA	% OIL	% NH3	% GOSYPL	GRADE
S-7	8.6	1.7	0.4	21.7	4.46	1.43	103
DPX 9920	8.5	1.5	0.5	21.8	4.40	1.41	103
HAZERA 195-86	8.8	2.9	0.8	20.9	4.70	1.07	100
HAZERA 83-58	8.7	1.5	0.8	19.2	4.47	1.33	93
OA-337	8.5	2.2	0.6	21.9	4.37	1.69	103
OA-325	8.5	1.6	0.5	21.7	4.52	1.49	103
OA-338	8.2	1.4	0.5	23.1	4.19	1.33	107
OA-340	7.9	1.6	0.6	23.2	4.52	1.44	109
PHY-70	8.1	1.5	0.5	21.4	4.52	1.59	102
PHY-74	8.0	1.9	0.5	22.5	4.29	1.49	105
PHY-76	8.2	1.5	0.5	20.9	4.59	1.51	100
PHY-77	8.0	1.6	0.5	23.0	4.42	1.34	108
UA-4	7.8	1.2	0.5	21.7	4.50	1.60	103
UA-5	7.8	1.8	0.6	22.9	4.59	1.69	108
UA-6	8.0	1.5	0.6	22.8	4.24	1.61	106
UA-7	8.4	1.9	0.6	20.9	4.50	1.60	99
LSD .05	0.4	0.8	NS	0.9	0.14	0.14	4
%CV	2.4	38.7	35.7	2.0	1.6	5.1	1.9

SEED INDEX

	MARICOPA	BUTTON WILLOW	WSFS	LOS BANOS	MEAN
S-7	13.8	12.7	12.7	13.9	13.3
DPX 9920	14.0	13.3	12.9	13.2	13.4
HAZERA 195-86	14.1	13.1	11.7	13.4	13.1
HAZERA 83-58	14.7	16.1	14.0	16.4	15.3
OA-337	11.5	12.4	11.0	12.5	11.9
OA-325	13.1	12.5	12.0	13.1	12.7
OA-338	13.7	15.3	13.1	14.1	14.1
OA-340	15.0	14.7	12.6	14.4	14.2
PHY-70	14.7	13.9	13.0	12.8	13.6
PHY-74	14.9	11.9	12.7	14.3	13.5
PHY-76	14.3	13.4	13.3	12.9	13.5
PHY-77	14.8	14.2	12.6	13.5	13.8
UA-4	13.9	12.9	13.1	13.9	13.5
UA-5	13.5	13.5	12.7	13.6	13.3
UA-6	13.0	12.8	12.6	11.4	12.5
UA-7	13.9	13.8	14.5	13.1	13.8
AVERAGE	13.9	13.5	12.8	13.5	13.4
LSD .05	0.9	1.6	1.5	NS	0.8
%CV	3.0	5.5	5.6	8.2	5.9

Exhibit 8
SJVCB Pima Trials 2000

Table 22. Pima ITC Uster tester 3 yarn tests from combed 80's, 2000.

No.	Variety	Comber waste	Elongation	Neps (count)		
		(noils) (%)	(%)	200	Thick	Thin
		1	2	3	4	5
1.	OA-340		4.95 f	134.8 f	93.6 fg	19.4 de
2.	PHY-76		5.73 a	168.8 e	94.7 ef	16.8 e
3.	S-7		5.01 ef	118.3 fg	103.5 cdef	30.1 b
4.	CH-007		4.90 fg	172.7 de	118.6 abc	24.7 bcd
5.	PHY-89		5.32 c	194.0 cd	120.9 ab	23.4 d
6.	PHY-88		5.46 b	173.4 de	114.6 abcd	23.4 d
7.	OA-345		4.83 g	183.7 de	119.4 abc	24.4 cd
8.	E-104		5.42 bc	172.6 de	112.4 abcd	24.9 bcd
9.	OA-351		5.32 c	212.6 bc	124.9 ab	16.1 e
10.	E-102		5.20 d	130.3 f	126.6 ab	36.5 a
11.	OA-352		5.18 d	136.0 f	100.9 def	22.8 d
12.	E-103		5.20 d	175.0 de	101.4 def	14.5 e
13.	OA-350		5.46 b	104.2 g	76.8 g	16.8 e
14.	E-101		5.13 d	133.9 f	110.6 bcde	29.1 bc
15.	UA-11		4.99 ef	240.6 a	129.2 a	17.2 e
16.	UA-12		5.09 de	228.6 ab	121.2 ab	17.2 e
Mean±SD			5.20±0.25	167.4±45.2	110.6±18.4	22.3±7.0
LSD(0.05)			0.12	21.9	17.0	5.5
CV			1.62	9.0	10.6	17.1

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Exhibit 9
SJVCB Pima Trials 1999

Table 46. Pima ITC fiber tests, 1999.

No.	Variety	Fineness and Maturity Ratio - Afis				Trash Content	
		Afis	Maturity	Micronaire	Stand.	Afis	% Short
		Fineness	Ratio			Fineness	Fiber
1	2	3	4	5	6		
1.	OA-340	146	0.91	3.66	160	4.6	2.5
2.	PHY-76	149	0.93	3.83	161	3.2	2.8
3.	<u>S-7</u>	<u>147</u>	<u>0.90</u>	<u>3.75</u>	<u>164</u>	<u>4.6</u>	<u>3.3</u>
4.	PHY-88	144	0.89	3.65	161	5.1	2.4
5.	PHY-89	146	0.90	3.70	163	5.2	2.2
6.	PHY-90	148	0.91	3.68	162	4.0	3.2
7.	DPX-9925	141	0.89	3.47	158	4.9	2.3
8.	OA-347	141	0.88	3.63	161	6.0	3.8
9.	DPX-9930	145	0.89	3.62	163	5.9	1.9
10.	PHY-91	144	0.90	3.78	160	3.6	2.9
11.	OA-325	152	0.91	3.65	167	4.4	2.2
12.	UA-5	145	0.91	3.64	159	4.3	3.6
13.	UA-6	146	0.91	3.63	160	4.3	3.0
14.	OA-348	147	0.89	3.44	165	4.8	2.4
15.	UA-7	144	0.90	3.64	160	4.6	2.6
16.	UA-8	150	0.91	3.79	166	5.1	2.8
Mean±SE		146	0.90	3.66	162	4.7	2.7
LSD (0.05)		5	0.02	0.15	3	0.6	0.5
CV		2.6	1.8	2.5	1.2	13.5	12.5

Exhibit 10
SJVCB Pima Trials 1999

Table 48. (continued).

No.	Variety	% Elongation HVI 1	Fiber Strength HVI 2	Length HVI 3	Length Uniformity HVI 4	Micronaire HVI 5
1.	<u>OA-340</u>	<u>6.7</u>	41.0	1.37	86.9	3.66
2.	<u>PHY-76</u>	<u>7.6</u>	41.8	1.36	87.3	3.83
3.	<u>S-7</u>	<u>6.5</u>	41.3	1.37	86.9	3.75
4.	PHY-88	7.2	40.6	1.33	86.0	3.65
5.	PHY-89	7.1	40.2	1.34	86.1	3.70
6.	PHY-90	7.3	41.1	1.36	87.2	3.68
7.	DPX-9925	7.1	41.2	1.37	86.7	3.47
8.	OA-347	6.4	41.7	1.38	87.0	3.63
9.	DPX-9930	6.8	38.8	1.34	85.1	3.62
10.	PHY-91	7.7	43.1	1.36	87.1	3.78
11.	OA-325	7.1	41.5	1.34	86.3	3.65
12.	UA-5	6.5	43.7	1.38	87.4	3.64
13.	UA-6	6.9	43.3	1.35	86.0	3.63
14.	OA-348	6.8	42.0	1.37	86.5	3.44
15.	UA-7	6.8	43.0	1.35	86.3	3.64
16.	UA-8	6.6	41.0	1.38	86.7	3.79
Mean±SE		6.9	41.6	1.36	86.6	3.66
LSD (0.05)		0.2	1.1	0.01	0.5	0.15
CV		3.1	3.0	0.8	0.5	2.5

Exhibit 11
SJVCB Pima Trials 2000

Table 20. Pima ITC fiber tests, 2000.

No.	Variety	Length	Elongation	Micronaire	Strength	Uniformity
		(inches)	(%)	3	4 (g/tex)	index 5
1	2	3	4	5		
1.	OA-340	6.87 fg	1.345 c	3.85	38.2 gh	86.9 cde
2.	PHY-76	8.07 a	1.358 b	3.85	40.8 cde	87.9 a
3.	<u>S-7</u>	<u>6.90 f</u>	<u>1.365 b</u>	<u>3.97</u>	<u>40.2 de</u>	<u>87.5 abcd</u>
4.	CH-007	6.63 gh	1.365 b	3.83	40.9 bcd	87.6 ab
5.	PHY-89	7.52 c	1.328 d	3.75	38.3 gh	86.9 cde
6.	PHY-88	7.85 ab	1.328 d	3.68	38.9 fgh	86.8 de
7.	OA-345	6.60 h	1.385 a	3.78	39.4 efg	87.8 a
8.	E-104	7.63 bc	1.323 d	3.62	41.7 ab	86.7 e
9.	OA-351	7.63 bc	1.357 bc	3.60	38.4 gh	86.8 cde
10.	E-102	7.63 bc	1.323 d	3.73	36.8 i	86.0 f
11.	OA-352	7.42 cd	1.360 b	3.68	40.0 def	87.1 bcde
12.	E-103	7.20 de	1.362 b	3.67	39.3 efg	86.8 de
13.	OA-350	7.80 b	1.353 bc	3.77	38.1 gh	87.5 abc
14.	E-101	7.52 c	1.388 a	3.88	37.6 hi	87.8 a
15.	UA-11	7.08 ef	1.387 a	3.75	41.5 abc	88.1 a
16.	UA-12	7.00 ef	1.383 a	3.75	42.2 a	87.9 a
Mean\pmSD		7.33\pm0.67	1.357\pm0.027	3.76\pm0.22	39.5\pm2.1	87.2\pm0.97
LSD(0.05)						
CV		2.75	0.818	2.76	2.8	0.7

*Fiber and yarn parameter (within columns) followed by the same letter are not significantly different using the F-protected LSD test ($P \leq 0.05$).

20020011

**EXHIBIT C
(COTTON)**

**U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 500
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705**

**OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)**

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
O & A Enterprises, Inc.	OA-340	DP 340 Pima <i>Wht</i> <i>6/11/04</i>
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP CODE)		FOR OFFICIAL USE ONLY PVPO NUMBER
37860 W. Smith-Enke Road Maricopa, AZ 85239		<i>20020011</i>

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. S-7 Variety 2. _____ Variety 3. _____

* 1. SPECIES:

G. hirsutum L. *G. barbadense* L.

* 2. AREA(S) OF ADAPTATION: (A = Adapted, NA = Not Adapted, NT = Not Tested)

<u>NA</u> Eastern	<u>NA</u> Delta	<u>NA</u> Central	<u>NA</u> Blacklands
<u>NA</u> Plains	<u>NA</u> Western	<u>A</u> Arizona	<u>A</u> San Joaquin
<u>A</u> Other (Specify): <u>New Mexico and West Texas</u>			

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

Application Variety	Comparison Variety 1	Comparison Variety 2	Comparison Variety 3
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Plant Habit:

Spreading, Intermediate, Compact	Intermediate	Intermediate
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Foliage:

Sparse, Intermediate, Dense	Intermediate	Intermediate
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Stem Lodging:

Lodging, Intermediate, Erect	Erect	Erect
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Fruiting Branch:

Clustered, Short, Normal	Normal	Normal
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Growth:

Determinate, Intermediate, Indeterminate	Intermediate	Intermediate
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Leaf Color:

Greenish yellow, Light green, Medium green, Dark green	Darker Green	Green
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3. GENERAL: (continued)

Boll Shape: Length less than width, Length equal to width, Length more than width Length more than width
Length more than width

Boll Breadth: Broadest at base, Broadest at middle Broadest at base Broadest at base

* 4. MATURITY: (50% Open Bolls; Preferred method; Describe method if different method was used.)

Estimated % open Oct. 1	17	18
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5. PLANT:

Height to Node Ratio	1.6	1.71
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No. of Nodes to 1st Fruiting Branch:
(excluding cotyledonary node)

Mature Plant Height cm: (from cotyledonary node to terminal)	41	40
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Maturity	44	45
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*6. LEAF: Upper most, fully expanded leaf.

Type: Normal, sub Okra, Okra, Super Okra	Normal	Normal
--	--------	--------

Pubescence: Absent, Sparse, Medium, Dense OR Trichomes/cm ² (Bottom surface excluding veins)	Medium	Medium
--	--------	--------

Nectaries: Present or Absent	Present	Present
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Leaf Senescence	3.3	3.9
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*7. STEM PUBESCENCE:
Glabrous, Intermediate, Hairy Intermediate Intermediate

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:	Normal	Normal
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Stem:	Normal	Normal
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Calyx Lobe: (normal is absent)

*9. FLOWER:

Petals: Cream, Yellow	Cream	Cream
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Pollen: Cream, Yellow	Cream	Cream
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Petal Spot: Present, Absent	Present	Present
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*10. SEED:

Seed Index: (g/100 seed, fuzzy basis)	14.2	13.3
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Lint Index: (g lint/100 seeds)		
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***11. BOLL:**

Yield (lbs/acre)	1430	(11% inc. over standard) 1291
Gin Turnout:		
<input checked="" type="checkbox"/> Picked	Stripped	29.8
Lint Grade	1.8	2.6
Number of Seeds per Boll		
Grams Seed Cotton per Boll	3.7	3.3
Number of Locules per Boll	3-4	3-4
Boll Type: (Stormproof, Storm Resistant, Open)		
	Open	Open

12. FIBER PROPERTIES:

Specify Method (HVI or other):	<u>Individual Instruments</u>	
* Length: (inches, 2.5% SL)	1.38	1.37
* Uniformity: (%)	87.7	87.0
* Strength, T1 (g/tex)	37.7	39.2
* Elongation, E1 (%)	7.3	7.4
* Micronaire:	3.56	3.72
Fiber Maturity	.908	.899
Fineness (Source: AFIS)	153	156
Yarn Tenacity: (cN/tex, 27 tex)		
Yarn Strength: (lbs. 80's) (combed 50's)	3528 4017	3507 4099
Neps (combed 80's)	266	288

13. DISEASES: (NT = Not Tested, S = Susceptible. MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

<u>NT</u> <i>Alternaria macrospora</i>	<u>NT</u> <i>Fusarium Wilt</i>
<u>NT</u> <i>Anthracnose</i>	<u>NT</u> <i>Phymatotrichum Root Rot</i>
<u>NT</u> <i>Ascochyta Blight</i>	<u>NT</u> <i>Pythium</i> (specify species)
<u>NT</u> <i>Bacterial Blight (Race 1)</i>	<u>NT</u> <i>Rhizoctonia solani</i>
<u>NT</u> <i>Bacterial Blight (Race 2)</i>	<u>NT</u> <i>Southwestern Cotton Rust</i>
<u>NT</u> <i>Bacterial Blight (Race ____)</i>	<u>NT</u> <i>Thielaviopsis basicola</i>
<u>NT</u> <i>Diplodia Boll Rot</i>	<u>R</u> <i>Verticillium Wilt</i>
<u> </u> Other (specify) _____	

14. NEMATODES, INSECTS AND PESTS: (NT = Not Tested, S = Susceptible, MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant)

- | | |
|--|--|
| <u>NT</u> Root-Knot Nematode | <u>NT</u> Reniform Nematode |
| <u>NT</u> Boll Weevil | <u>NT</u> Grasshopper (specify species): _____ |
| <u>NT</u> Bollworm | <u>NT</u> Lygus (specify species): _____ |
| <u>NT</u> Cotton Aphid | <u>NT</u> Pink Bollworm |
| <u>NT</u> Cotton Fleahopper | <u>NT</u> Spider Mite (specify species): _____ |
| <u>NT</u> Cotton Leafworm | <u>NT</u> Stink Bug (specify species): _____ |
| <u>NT</u> Cutworm (specify species): _____ | <u>NT</u> Thrips (specify species): _____ |
| <u>NT</u> Fall Armyworm | <u>NT</u> Tobacco Bud Worm |
| <u> </u> Other (specify): _____ | |

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

	Application Variety	Comparison Variety 1
Shirley Non-lint % (for trash)	2.5	3.3
% gossypol	1.36	1.44

200200111

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) O & A Enterprises, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER OA-340	3. VARIETY NAME DP 340 Pima <i>LAW</i> 5/11/04
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and County) PO BOX 1440 <i>LAW</i> 37860 W. Smith-Enke Road <i>2/5/04</i> Maricopa, AZ 85239	5. TELEPHONE (Include area code) (520) 381-2219	6. FAX (Include area code) (520) 568-2556
7. PVPC NUMBER 200200111		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain YES 9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country YES NO10. Is the applicant the original owner? YES NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

 YES NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

 YES NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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